



NASDAQ: AQMS

2017 YE Earnings Call

March 15, 2018

Safe Harbor

This presentation contains forward-looking statements concerning Aqua Metals, Inc. Forward-looking statements include, but are not limited to our plans, objectives, expectations and intentions and other statements that contain words such as “expects,” “contemplates,” “anticipates,” “plans,” “intends,” “believes” and variations of such words or similar expressions that predict or indicate future events or trends, or that do not relate to historical matters. The forward looking statements in this release include the strength and efficacy of Aqua Metals’ portfolio of patent applications and issued patents, the lead acid battery recycling industry, the future of lead acid battery recycling via traditional smelters, the Company’s development of its commercial lead acid battery recycling facilities and the quality and efficiency of the Company’s proposed lead acid battery recycling operations. Those forward-looking statements involve known and unknown risks, uncertainties and other factors that could cause actual results to differ materially. Among those factors are: (1) the risk that the Company may not be able to produce and market AquaRefined lead on a commercial basis or, if the Company achieves commercial operations, that such operations will be profitable, (2) the fact that the Company only recently commenced production and has not generated any significant revenue to date, thus subjecting the Company to all of the risks inherent in a pre-revenue start-up; (3) the risk no further patents will be issued on the Company’s patent applications or any other application that it may file in the future and that those patents issued to date, and patents issued in the future will be sufficiently broad to adequately protect the Company’s technology, (4) the risk that the Company’s initial patents and any other patents that may be issued to it may be challenged, invalidated, or circumvented, (5) risks related to Aqua Metals’ ability to raise sufficient capital, as and when needed, to develop and operate its recycling facilities and fund continuing losses from operations as the Company endeavors to achieve profitability; (6) changes in the federal, state and foreign laws regulating the recycling of lead acid batteries; (7) the Company’s ability to protect its proprietary technology, trade secrets and know-how and (8) those other risks disclosed in the section “Risk Factors” included in the Company’s Quarterly Report on Form 10-Q filed on November 9, 2017. Aqua Metals cautions readers not to place undue reliance on any forward-looking statements. The Company does not undertake, and specifically disclaims any obligation, to update or revise such statements to reflect new circumstances or unanticipated events as they occur, except as required by law.

Key milestones

- First external funding Q4 2014
- First full-scale electrolyser Q1 2015
- IPO July 2015, facility construction began August 2015
- Key permits Q3/4 2016 – not subject to NESHAP
- Strategic partnership with JCI Q1 2017
- Key patents H2 2017
- Daytime operation of 1 electrolyser Q4 2017
- Daytime operation of 1 module and first 24hr run Q1 2018



Agenda

- Operations update
 - “Sticky lead”
 - TRIC ramp-up
- Intellectual Property
- Financials
- Summary

“Sticky lead”

- Symptom
 - Lead hanging up on scraper/chute
 - No prior indication with prototypes, pilot unit or first production electrolyser
- Cause
 - Stratification of the electrolyte in the plating tanks
 - Process advantages masked the issue
 - The electrolyte entering and exiting the system remained in specification, as did the lead we produced



Sticky lead – the fix

- Primary - better electrolyte mixing within the electrolyser
 - Increased electrolyte headers to 2
 - Increased electrolyte circulation rate
 - Achieved better control of plating conditions
- Secondary – reengineered scraper table
 - Programmable pneumatic table tilt – known as the “dump truck”
- Together these features allow us to produce lead using less energy
 - Have produced lead at target rate at 13-14% less energy
 - Longer term potential to increase throughput



AquaRefining retro-fit & ramp-up

- Retro-fit
 - All 16 modules on site and in-place
 - Fix-kit consists of new manifolds and modified exit chute with pneumatic tilt feature
 - All key parts for the 16 fix-kits on-site
 - 1 module retro-fitted and running since late January and fix-kit validated
 - Total focus on retrofitting all modules by the end of March
- Production ramp-up
 - 16 modules organized in 2 “trains” of 8 modules
 - Plan is to bring groups of 4 modules on-line
 - Train 1 – modules 1-4, then 5-8
 - Train 2 – modules 9-12 then 13-16
 - We expect to bring the first group of 4 into initial production by the end of March and Ramp AquaRefining production during Q2

Operations and facility ramp-up

- Now seeing benefits of multiple organizational, staffing and equipment changes implemented during 2017
 - New Plant Management, Process Engineering, EH&S and Maintenance
 - Technology and Engineering leadership relocated to TRIC
- Breaking and Separation equipment operating
- De-sulfurization and digestion (electrolyte production) ramping up to meet AquaRefining needs
- Functioning as an operating facility

Lead products ramp-up

- Two 50 Tonne kettles installed
 - 4 additional kettles to be added
- JCI providing assistance with operator training at JCI facilities with follow-up at TRIC
 - Helps de-risk ramp-up
 - Potential to accelerate supplier approval process
 - Provides JCI with planning retro-fit
- Product progression
 - Starting with lead bullion – AquaRefined and “direct to kettle” lead combined into standardized lead product
 - Progress to high purity grades of AquaRefined lead
 - Then produce specific lead alloys to JCI’s specification

Intellectual Property – first key patent allowed in 6 countries

- Our first patent “Devices and Method for Smelterless Recycling” was key
 - Now allowed in US, Canada, Korea, Japan, Australia and South Africa
 - More countries in play
- Seven additional families filed and pending
- “Next Generation” filings have started with provisional filings and one US
- We faced considerable skepticism over our ability to carve out valuable IP in what was considered to be a crowded IP space
- Our first patent was allowed with substantially all claims intact
 - We believe this is a significant achievement which establishes important precedents on priority, prior-art, patentability

AquaMetals: Q4'17 Financial Performance

Financial Highlights	Quarter Ended 12/31/17	Twelve- Months Ended 12/31/17
Product Sales	\$0.9M	\$2.1M
Loss from Operations	\$(6.5M)	\$(24.9M)
Net Loss	\$(7.0M)	\$(26.5M)
Cash @ 12/31/17	\$22.8M	
Total Current Assets @ 12/31/17	\$25.7M	
Capex Spend in Q4'17	\$2.2M	
Total Gross Property & Equipment, at 12/31/17	\$49.2M	

Summary

- We fixed the sticky lead issue and are fully implementing the retro-fit
 - Understanding and fixing the issue helped us achieve higher efficiency
 - Gives us the potential for future advancements
- We use a novel combination of recycling, chemical, electro-chemical and metallurgical processes – which is quite different from a conventional recycler
 - We adjusted management, team and focus during 2017 to this reality
 - Changes made in 2017 now yielding benefits
- We are leveraging our relationship with JCI and passing key tests as an operational facility
- Our focus is ramping-up production of AquaRefined lead at TRIC
 - This is our catalyst for growth